DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-026605
Date Inspected: 29-Oct-2011

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 600
OSM Departure Time: 1430
Location: Job Site

CWI Name:	See Below			**CWI Present:**	☑ Yes	☐ No	
Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: OBG

Summary of Items Observed:

At the start of the shift the Quality Assurance Inspector (QAI) traveled to the SAS project site and observed the work and the inspection performed by American Bridge/Fluor Enterprises (AB/F) personnel. The inspection was performed as noted below:

A). This Quality Assurance Lead Inspector (QALI) assigned to the QAI, Douglas Frey, to the following but not limited to these work stations, to observe the welding and QC inspection:

OBG W12/13W
Lifting Lug Holes (LLH)
OBG E12/E13

1). The QAI, Doug Frey, observed the continued Complete Joint Penetration (CJP) groove welding of the side plate field splice identified as 12W-13W-E. The welding was performed by the welder Rory Hogan ID-3186 utilizing the Flux Cored Arc Welding w/gas (FCAW-G) process as per the Welding Procedure Specification (WPS) ABF-WPS-D15-3110-4, Rev. 0. The QC inspector, John Pagliero, performed the inspection and verified the welding parameters utilizing the WPS as a reference. No issues were noted by the QA inspector at the time of random observations. The welding of "A" Face performed at this work station was completed during this shift on this date.

The QAI also observed the welder Jeremy Dolman ID-5042 continue the removal of the backing bar utilizing the Plasma Arc Cutting (PAC) process of the weld joint identified as 12W-13W-D.

2). Later in the shift the QAI observed the welder, Mr. Lopez, had mobilized to the Orthotropic Box Girder

(OBG) W11 to set-up and to perform the CJP welding of the LLH identified as 11W-PP100-W4-W2. The field welding was performed utilizing the WPS ABF-WPS-D15-1050A-CU and was also utilized by the QC inspector, Patrick Swain, to monitor the welding and verifiy the welding parameters.

3). The QAI, Doug Frey, also observed the Complete Joint Penetration (CJP) welding of the bottom plate field splice identified as 12E-13E-D2. The welding was perfomed utilizing the Sub-Merged Arc Welding (SAW) as per the Welding Procedure Specification (WPS) ABF-WPS-D15-3110-4, Rev. 0 which was utilized by the QC Inspector, Fred Von Hoff, as a reference to monitor the welding, verify the welding parameters, the minmum preheat and maximum interpass temperatures. The QAI, Doug Frey also, at random intervals, observed and monitored the inspection performed by the QC inspector.

B). This Quality Assurance Lead Inspector (QALI) assigned the QAI, Art Peterson, to the following but not limited to these work stations, to observe the welding and QC inspection:

OBG W12/W13

1). The QAI also observed the Complete Joint Penetration (CJP) groove welding of the longitudinal "A" deck stiffeners identified as 12W-13W-A-LS6 and LS5. The welding performed by Fred Kaddu ID-2188 utilizing the Shielded Metal Arc Welding (SMAW) process as per the WPS identified as ABF-WPS-D15-1012-3, Rev. 0 which was also utilized by the QC Inspector William Sherwood as a reference to monitor the welding and to verify the DC welding parameters. The welding of these joints was not completed during this shift.

C). This Quality Assurance Lead Inspector (QALI) assigned to the QAI, Joselito Lizardo, to the following, but not limited to these work stations, to observe the welding and QC inspection:

Lifting Lug Holes (LLH)

Cross Beam # 1, Service Platform

1). The QAI, Joselito Lizardo, observed the Complete Joint Penetration (CJP) groove welding of the LLH located at OBG W11 and identified as11W-PP100-W4-W1 and W2. The welding was performed by the welder, Jorge Lopez ID-6149, in the 1G (flat) position utilizing the Shielded Metal Arc Welding (SMAW) process as per the WPS identified as ABF-WPS-D15-1050A-CU. The QAI observed the QC Inspector, Sal Merino, monitor the welding and verified the welding parameters utilizing the WPS as a reference. The welding of weld #2 was completed during this shift.

2). Later in the shift, Mr. Lizardo, observed the fillet welding of the connection plates located at the north and south ends of the cross beam facing the service platform. The welding was performed by Eric Sparks ID-3040 utilizing the Shielded Metal Arc Welding (SMAW) process as per the Welding Procedure Specification identified as ABF-WPS-F1200-2, Rev. 2. The QC inspection was performed by Jesse Cayabyab utilizing the WPS as a reference.

Quality Assurance Lead Inspector (QALI) Summary

Later in the shift, this QA Lead Inspector (QALI) also observed the QA Inspector's Doug Frey, Art Peterson and Joselito Lizardo monitor the work performed by the QC inspectors at random intervals and also observed the QA

Inspectors verify the welding parameters, the minimum preheat and the maximum interpass temperatures. The QAI's utilized a Fluke 337 clamp meter to measure the electrical welding parameters, Tempil Heat Indicators and/or a Fluke 63 IR Thermometer for verifying the preheat and interpass temperatures. At the conclusion of the shift this QA Lead Inspector discussed and reviewed the work performed by the QAI's in regards to the various observations and the verifications of the WPS's, consumables, welding parameters, preheat and interpass temperatures as described above. The QAI observations of the QC inspection and verification of the welding parameters performed on this date appeared to comply with the contract specifications with no issues noted.

For additional detailed information see the individual QAI, submitted and approved, Weld Inspection Reports (WIR).

This QA Inspector continued the daily review of field inspection reports and update of the field document control tracking records regarding the Orthotropic Box Girders (OBG, Longitudinal and Transverse "A" Deck Stiffeners, Deck Access Holes and the Tower Shear plates. The QAI also updated the tracking records for the pipe welds and the pipe supports.

Summary of Conversations:

There were general conversations with Quality Control Lead Inspector, Bonifacio Daquinag, Jr., at the start of the shift regarding the location of welding, inspection personnel scheduled for this shift.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Reyes,Danny	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer